(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 16 December 2004 (16.12.2004)

PCT

(10) International Publication Number WO 2004/108661 A1

- (51) International Patent Classification CO7C 311/18, 311/54, A61K 31/41, 31/18, 31/38, A61P 29/02, 25/28, 37/02, 35/00, 9/10, C07D 263/56, 335/02, A61P 17/06
- (21) International Application Number:

PCT/US2004/017654

(22) International Filing Date:

4 June 2004 (04.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/475,612

4 June 2003 (04.06.2003) U

- (71) Applicant (for all designated States except US): AXYS PHARMACEUTICALS [US/US]; 180 Kimball Way, So. San Francisco, CA 94080 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): PATTERSON, John, W. [US/US]; 1619 Montalto Drive, Mountain View, CA 94040 (US).
- (74) Agents: BANSAL, Rekha et al., Celera, 180 Kimball Way, So. San Francisco, CA 94080 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BĞ, BR, BW, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Declaration under Rule 4:17:

of inventorship (Rule 4 17(13)) for US only

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AMIDINO COMPOUNDS AS CYSTEINE PROTEASE INHIBITORS

(57) Abstract: The present invention is directed to compounds that are inhibitors of cysteine proteases, in particular, cathepsins B, K, L, F, and S and are therefore useful in treating diseases mediated by these proteases. The present invention is directed to pharmaceutical compositions comprising these compounds and processes for preparing them.